



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**

REGION 4  
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ATLANTA GEORGIA 30303-8960

June 28, 2010

Mark Lewis, Superintendent  
Biscayne National Park  
9700 S.W. 328<sup>th</sup> Street  
Homestead, Florida 33034-3346

SUBJECT: Draft Programmatic Environmental Impact Statement for the Coral Reef  
Restoration Plan at Biscayne National Park in Homestead, Florida;  
CEQ Number 20100147

Dear Mr. Lewis:

The U.S. Environmental Protection Agency (EPA) has reviewed the referenced Draft Coral Reef Restoration Plan (Plan)/Programmatic Environmental Impact Statement (PEIS) in accordance with its responsibilities under Section 309 of the Clean Air Act and Section 102(2)(C) of the National Environmental Policy Act (NEPA). The Plan/PEIS provides a systematic approach for addressing injuries to coral reefs caused by vessel groundings within Biscayne National Park (BNP) in Homestead, Florida. The National Park Service (NPS) is the lead federal agency for the proposed action.

The Draft PEIS assesses the environmental impacts of two alternatives. Alternative 1 (no action) would not change the existing approach to coral reef restoration planning and implementation. Restoration planning and implementation would occur for each vessel-grounding incident, and the impacts of the selected actions would be assessed at that time. Alternative 2 allows for selection of the most appropriate restoration actions and specific methods from a "toolbox" of methods that have already had their impact evaluated programmatically. The toolbox of available restoration methods analyzed in the Draft PEIS are: 1) no active restoration/no monitoring; 2) monitoring only; 3) reattach biota; 4) biological seeding; 5) abate fuel/chemical spills; 6) remove bottom paint/fouling substance from reef; 7) seal fractures; 8) stabilize displaced substrate; 9) stabilize displaced substrate with artificial structures; 10) stabilize rubble; and 11) rubble removal from injury site. Unless relevant coral reef restoration technologies have changed or site-specific conditions are not addressed in the Plan/PEIS, further NEPA analysis may not be required. Alternative 2 is identified as the NPS preferred alternative.

In general, EPA agrees with the purpose and need for this project provided that good decisions are made by NPS biologists. EPA supports the NPS goal of substantially reducing the planning period (time-lag) between the initial injury and the commencement of restoration activities by analyzing issues up-front programmatically. Ultimately this should lead to grounding sites being restored within a shorter timeframe than under the no action alternative.

Overall impacts of the various restoration methods do not appear to be significant at the programmatic or site-specific stage, especially compared to the overall benefits of coral restoration. EPA defers to NPS biologists as to what methods are best for a given coral injury. As a restoration project, the benefits outweigh any “impacts” – which appear to be minimal and short-term – generated by the restoration work. However, EPA does offer a number of comments that should be addressed in the Final PEIS.

Reef restoration is a combination of art and science with a need to have experienced people in charge of development, implementing, overseeing, and evaluating success of coral reef restoration. When there is the need to restore a damaged coral site, scientists currently evaluate the situation and pick the best suite of restoration options available for any individual site. The Draft PEIS describes the restoration methods that would be available for selection in the event of an injury; however, the Draft PEIS does not describe the process by which a preferred method(s) would be selected. EPA does not disagree with the streamlined approach proposed by NPS; however, approval of the PEIS should not result in a process that lends itself to skipping important planning/consultation steps towards selection of a preferred restoration option. EPA recommends that the Final PEIS include a more thorough description of the process that NPS would follow under the preferred alternative. In addition, EPA recommends that NPS discuss the potential use of a categorical exclusion as appropriate NEPA documentation for tiering future restoration activities in lieu of a “memo to file”.

Some additional baseline information on the present health of the BNP corals should be provided. The Draft PEIS does not include any “trend” information about the epibenthic biota in the BNP. According to the literature, global health of corals seems to be declining from coastal nutrients and climate change. If the basic health of the BNP coral communities is affected, this may affect the selection of a specific restoration action. EPA recommends that the Final PEIS address the present health of BNP coral communities, especially related to diseases that may be induced by climate change or coastal nutrient pollutants.

Although it is understood that this is a PEIS to address coral reef restoration actions, the document should also address ways to prevent vessel groundings and thereby reduce the need for restoration. The inclusion of active prevention measures ultimately leading to avoidance of the coral injury should be part of any programmatic coral reef protection and restoration plan. Specific prevention options include marking reef areas with signs or mooring buoys that will prevent anchor damage and may provide a visual cue to avoid the areas and prevent groundings in the absence of signs. Additional signage options might include establishment of marine markers designating specific coral restoration sites (particularly special sites for threatened and endangered species). Public outreach and educational preventative measures could include development of marine maps and other guidance (e.g., brochures depicting markers) provided by BNP, and short and free training sessions for boating visitors on methods to avoid coral injury. Administrative measures might include additional penalties levied by BNP for vessel groundings beyond Florida law, and penalty waivers for self-reporting of groundings to allow for their restoration (since many groundings are not reported). EPA recommends that the Final PEIS include prevention as part of the preferred alternative. This could be a stand-alone restoration action (that could include several options as described above) in Section 2.3 focused on

prevention or include a number of avoidance actions as management options common to many of the restoration methods described in the mitigation section (2.5).

A key component of any management plan, especially a restoration plan, is the inclusion of specific performance standards. Monitoring is included as part of the preferred alternative to identify the quantity and quality of recovery at grounding sites. However, in order to measure success, restoration should be assessed by performance standards. It is unclear from the Draft PEIS what would constitute restoration success and on what timeframe. EPA recommends that the Final PEIS include specific performance criteria, potentially tailored to each restoration method, to determine the efficacy of each restoration option and/or project.

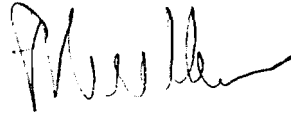
Related to monitoring and performance assessment is the issue of whether restoration management actions will be restricted to those currently included in the “toolbox” and analyzed in the Draft PEIS. For example, what happens if a new technology becomes available that is not currently included in the toolbox? Will scientists be limited to only those approved in the Draft PEIS or could new, innovative approaches to reef restoration be used? EPA recommends that the Final PEIS include a discussion of the process for consideration of newly developed restoration alternatives under an adaptive management protocol.

A number of mitigation measures, including best management practices (BMP), are proposed in Section 2.5 of the Draft PEIS to avoid or minimize potentially adverse impacts from implementation of any of the proposed restoration actions. EPA supports inclusion of diver BMPs that serve to minimize the generation of turbidity and any spillage of fuels from dive vessels. Additionally, vessels must avoid anchoring on corals or their own grounding, which would further injure corals and other live bottoms. It is well known that coral colonies require certain light levels and minimal inundation by sediment. Therefore, minimizing the generation of turbidity and sedimentation during restoration work will be critical. Anti-fouling paints should be removed from a grounding site carefully and as soon as possible. EPA recommends that all mitigation measures and monitoring programs, as described in the Draft PEIS and above, be fully implemented.

In summary, EPA supports the NPS restoration plan proposed for BNP and defers to NPS biologists regarding its implementation to select appropriate methods for specific coral injuries. EPA recommends that all restoration work be monitored and guided by performance standards to measure success, as well as to determine the need for adaptive management which could include selection of another type of restoration method. Diver restoration work should use BMPs that minimize the generation of turbidity due to coral requirements for minimum light levels and minimal sediment inundation. The Final PEIS should also address the present health of BNP coral communities (especially diseases that may be induced by climate change and coastal nutrient pollutants) and methods to reduce/prevent vessel groundings within the BNP so that future coral restoration (which is a long-term and expensive process) would be reduced and simplified.

We appreciate the opportunity to review the proposed action. EPA rates this document LO (Lack of Objections). We support the proposed project and have not identified any potential environmental impacts requiring substantive changes to the preferred alternative. Please contact Ben West at (404) 562-9643 if you have any questions or want to discuss our comments.

Sincerely,

A handwritten signature in black ink, appearing to read "H. Mueller", with a long horizontal flourish extending to the right.

Heinz J. Mueller, Chief  
NEPA Program Office  
Office of Policy and Management

cc: National Park Service, Southeast Regional Office